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Parasite-Host Records of Alaskan Fishes

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National Oceanic and Atmospheric Administration
National Marine Fisheries Service

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734. Escape of king crab, *Paralithodes camtschatica*, from derelict pots. By William L. High and Donald D. Worlund. May 1979, iii+11 p., 5 figs., 6 tables.

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736. A historical and descriptive account of Pacific coast anadromous salmonid rearing facilities and a summary of their releases by region, 1960–76. By Roy J. Whale and Robert Z. Smith. September 1979, iv+40 p., 15 figs., 25 tables.

737. Movements of pelagic dolphins (*Stenella* spp.) in the eastern tropical Pacific as indicated by results of tagging, with summary of tagging operations, 1969–76. By W. F. Perrin, W. E. Evans, and D. B. Holts. September 1979, iii+14 p., 9 figs., 8 tables.

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739. Bottom-water temperature trends in the Middle Atlantic Bight during spring and autumn, 1964–76. By Clarence W. Davis. December 1979, iii+13 p., 10 figs., 9 tables.

740. Food of fifteen northwest Atlantic gadiform fishes. By Richard W. Langton and Ray E. Bowman. February 1980, iv+23 p., 3 figs., 11 tables.

741. Distribution of gammaridean Amphipoda (Crustacea) in the Middle Atlantic Bight region. By John J. Dickinson, Roland L. Wigley, Richard D. Brodeur, and Susan Brown-Leger. October 1980, vi+46 p., 26 figs., 52 tables.

742. Water structure at Ocean Weather Station V, northwestern Pacific Ocean, 1966-71. By D. M. Husby and G. R. Seckel. October 1980, 18 figs., 4 tables.

743. Average density index for walleye pollock, *Theragra chalcogramma*, in the Bering Sea. By Loh-Lee Low and Ikuo Ikeda. November 1980, iii+11 p., 3 figs., 9 tables.

744. Tunas, oceanography and meteorology of the Pacific, an annotated bibliography, 1950-78, by Paul N. Sund. March 1981, iii+123 p.

745. Dorsal mantle length-total weight relationships of squids *Loligo pealei* and *Illex illecebrosus* from the Atlantic coast of the United States, by Anne M. T. Lange and Karen L. Johnson. March 1981, iii+17 p., 5 figs., 6 tables.

746. Distribution of gammaridean Amphipoda (Crustacea) on Georges Bank, by John J. Dickinson and Roland L. Wigley. June 1981, iii+25 p., 16 figs., 1 table.

747. Movement, growth, and mortality of American lobsters, *Homarus americanus*, tagged along the coast of Maine, by Jay S. Krouse. September 1981, iii+12 p., 10 figs., 8 tables.

748. Annotated bibliography of the conch genus *Strombus* (Gastropoda, Strombidae) in the western Atlantic Ocean, by George H. Darcy. September 1981, iii+16 p.

749. Food of eight northwest Atlantic pleuronectiform fishes, by Richard W. Langton and Ray E. Bowman. September 1981, iii+16 p., 1 fig., 8 tables.

750. World literature to fish hybrids with an analysis by family, species, and hybrid: Supplement 1, by Frank J. Schwartz. November 1981, iii+507 p.

751. The barge *Ocean 250* gasoline spill, by Carolyn A. Griswold (editor). November 1981, iv+30 p., 28 figs., 17 tables.

752. Movements of tagged summer flounder, *Paralichthys dentatus*, off southern New England, by F. E. Lux and F. E. Nichy. December 1981, iii+16 p., 13 figs., 3 tables.

753. Factors influencing ocean catches of salmon, *Oncorhynchus* spp., off Washington and Vancouver Island, by R. A. Low, Jr. and S. B. Mathews. January 1982, iv+12 p., 6 figs., 7 tables.

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U.S. DEPARTMENT OF COMMERCE
Malcolm Baldridge, Secretary
National Oceanic and Atmospheric Administration
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National Marine Fisheries Service
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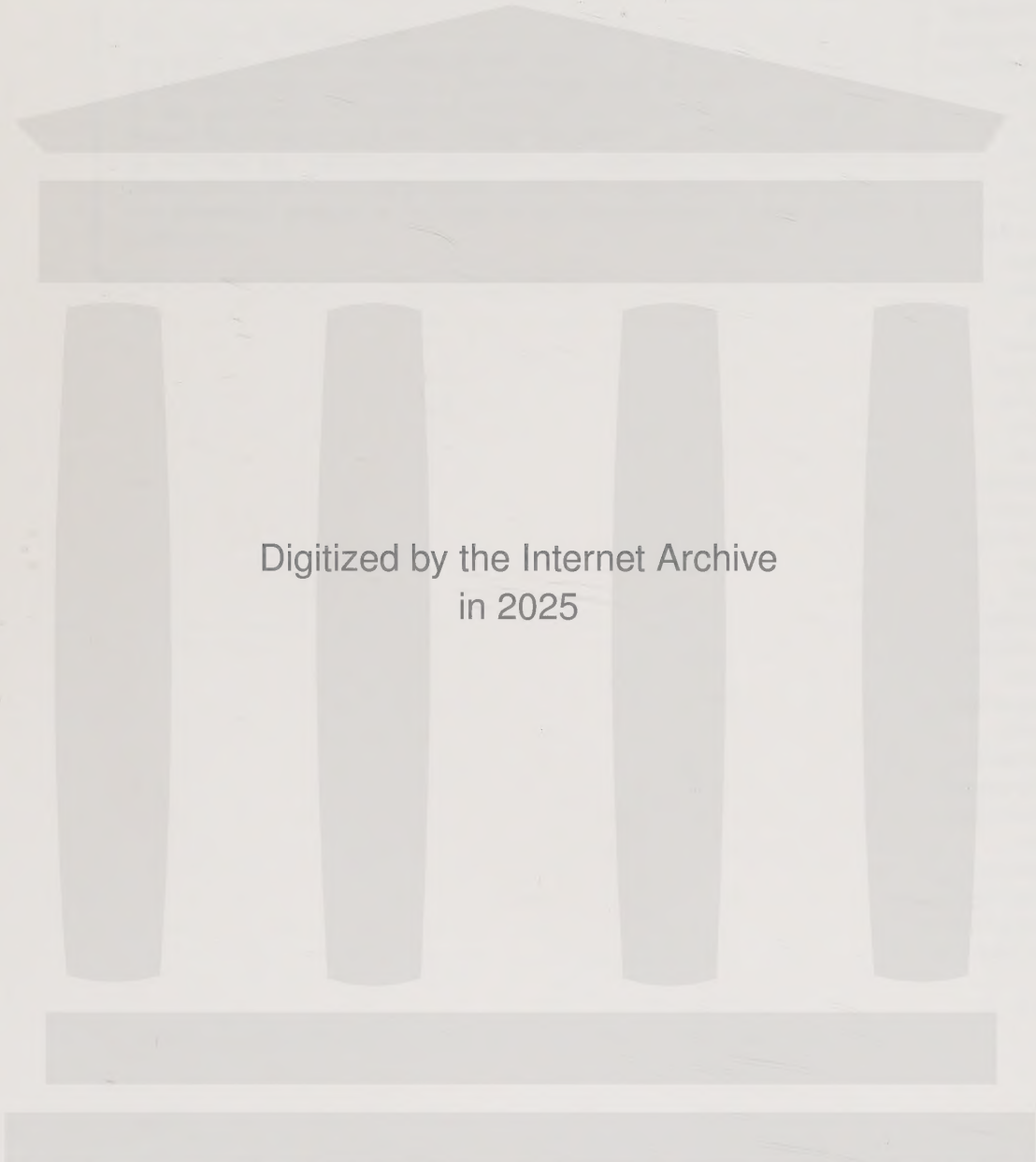

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Parasite-Host Records of Alaskan Fishes

ADAM MOLES[1]

ABSTRACT

This report summarizes the published records of parasites of freshwater and coastal marine fishes of Alaska through 1980. The report is organized both by parasite and by host, is cross-referenced, and provides a convenient, single source of information on parasites of Alaskan fishes.

INTRODUCTION

References to parasites and their hosts for freshwater and coastal marine fishes of Alaska are scattered in dozens of published papers. This report provides a single source of published host-parasite records. Secondarily, it reveals host species for which little information on parasites exists.

I have attempted to include all formally published accounts (except collections from the high seas) of parasites of fish from Alaskan coastal or freshwaters through 1980. Most of these publications are from faunal surveys. The work of Jellison and Neiland (1965) was especially helpful in identifying some of the major pre-1960 work. I invite readers to call my attention to omissions.

For consistency in spelling, two references were used: Robins et al. (1980) and Margolis and Arthur (1979). No attempt has been made to unravel the complexities of parasite synonomy or to check the validity of published records. Scientific names have generally been left as the authors reported them unless most of the literature has clearly adopted a different name.

The report consists of two sections—parasite-host and host-parasite. In the parasite-host section, parasites are listed in the following order: Protozoa, Myxozoa, Monogenea, Trematoda, Cestoda, Nematoda, Acanthocephala, Hirudinea, Isopoda, Copepoda, and Mollusca (glochidia). Parasites within each group are listed alphabetically with the reported hosts for each parasite, with the appropriate reference. Only the first reported instance of each parasite-host relation is cited, and duplicate citations have been avoided except where a subsequent citation is more readily available or more complete. The adult and larval forms are listed separately for Trematoda, Cestoda, and Nematoda. Forms for which the life stage cannot be determined are listed with the adults. The host-parasite section lists parasites found on or in a given fish. The host families are organized phylogenetically after Robins et al. (1980). Within each family, genera are listed alphabetically. Larval forms of parasites are indicated by an asterisk (*) in the host listings.

[1]Northwest and Alaska Fisheries Center Auke Bay Laboratory, National Marine Fisheries Service, NOAA, P. O. Box 155, Auke Bay, AK 99821.

PARASITE-HOST LIST

Parasite	Host	Reference
	PROTOZOA	
Cryptobia sp.	*Cottus aleuticus*	Becker and Katz 1965
Eimeria clupearum (Thelohan 1894) Doflein 1909	*Clupea harengus pallasi*	Arthur and Arai 1980
Eimeria nishin Fujita 1934	*Clupea harengus pallasi*	Arthur and Arai 1980
	MYXOZOA (MYXOSPOREA)	
Ceratomyxa asymmetrica Moser and Noble 1976	*Coryphaenoides cinereus*	Moser and Noble 1976
Chloromyxum coregoni Bauer 1948	*Oncorhynchus nerka*	Konovalov 1971
Chloromyxum wardi Kudo 1920	*Oncorhynchus nerka*	Kudo 1920
Henneguya salminicola Ward 1919	*Oncorhynchus gorbuscha*	Fish 1939
	O. keta	Fish 1939
	O. kisutch	Fish 1939
	O. nerka	Fish 1939
	O. tshawytscha	Fish 1939
Kudoa sp.	*Hippoglossus stenolepis*	Patashnik and Groninger 1964
	Eopsetta jordani	Patashnik and Groninger 1964
	Microstomus pacificus	Patashnik and Groninger 1964
Myxobolus krokhini Konovalov and Shulman 1966	*Oncorhynchus nerka*	Konovalov 1971
Myxoproteus abyssus Yoshino and Moser 1974	*Coryphaenoides cinereus*	Yoshino and Moser 1974
	C. longifilis	Yoshino and Moser 1974
Ortholinea orientalis (Shulman and Shulman-Albova 1953)	*Clupea harengus pallasi*	Arthur and Arai 1980
Zschokkella meglitschi Moser and Noble 1977	*Coryphaenoides longifilis*	Moser and Noble 1977

Parasite	Host	Reference
	MONOGENEA	
Acanthocotyle williamsi (Price 1938) Yamaguti 1963	Raja sp.	Price 1938
Benedenia derzhavini (Layman 1930) Meserve 1938	Sebastes aleutianus	Sekerak 1975
	S. alutus	Mamaev 1965
	S. zacentrus	Sekerak 1975
Cyclocotyloides pinguis (Linton 1940) Price 1943	Coryphaenoides pectoralis	McCauley and Smoker 1969
Dactylogyrid	Thymallus arcticus	Dunagan 1957
Entobdella hippoglossi (O. F. Muller 1776) Johnston 1856	Hippoglossus stenolepis	Price 1939
Gyrodactyloides strelkowi Bykhovskaya and Polyanskaya 1953	Oncorhynchus nerka	Pennell et al. 1973
Microcotyle sebastis Goto 1894	Sebastes alutus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Squalonchotyle somniosi (Causey 1926)	Somniosus pacificus	Causey 1926
Tetraonchus alaskensis Price 1937	Oncorhynchus kisutch	Price 1937
	O. nerka	Margolis 1963
	Salmo clarki	Price 1937
	Salvelinus malma	Price 1937
Tetraonchus rauschi Mizelle and Webb 1953	Thymallus arcticus	Mizelle and Webb 1953
Tetraonchus variabilis (Mizelle 1953)	Prosopium cylindraceum	Mizelle and Webb 1953
Trochopus marginata (Folda 1928) Price 1936	Sebastes ruberrimus	Yamaguti 1963, Bonham 1950
	S. melanops	Bonham 1950
Trochopus sp.	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. zacentrus	Sekerak 1975

Parasite	Host	Reference
	ADULT TREMATODA	
Aponurus argentini Polyanski 1952	Merluccius productus	Kovalenko 1970
Aporocotyle margolisi Smith 1967	Merluccius productus	Kovalenko 1970
Brachyphallus crenatus (Rudolphi 1802) Odhner 1905	Clupea harengus pallasi	Arthur and Arai 1980
	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
	O. tshawytscha	Riis 1974
	Osmerus mordax	Neiland 1962b
Bunodera luciopercae (Muller 1776) Luhe 1909	Salvelinus alpinus	Mudry and McCart 1976
Bunodera sp.	Gasterosteus aculeatus	Dunagan 1957
Crepidostomum farionis (Muller 1780) Luhe 1909	Esox lucius	Dunagan 1957
	Oncorhynchus nerka	Margolis 1963
	Salmo gairdneri	Dunagan 1957
	Salvelinus alpinus	Mudry and McCart 1976
	S. namaycush	Dunagan 1957
Crepidostomum isostomum Hopkins 1931	Thymallus arcticus	Dunagan 1957
Crepidostomum sp.	Oncorhynchus nerka	Neiland 1962a
	Salmo gairdneri	Neiland 1962a
	Salvelinus malma	Neiland 1962a
Derogenes macrostoma Yamaguti 1938	Merluccius productus	Kovalenko 1970
Derogenes varicus (Muller 1784) Looss 1901	Hemilepidotus hemilepidotus	Kruse 1977
	Hippoglossus stenolepis	Kruse 1977
	Lepidopsetta bilineata	Kruse 1977
	Lycodes palearis	Kruse 1977
	Merluccius productus	Kovalenko 1970
	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
	Ronquilus jordani	Kruse 1977
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. zacentrus	Sekerak 1975

Parasite	Host	Reference
Adult Trematoda (continued)		
Fellodistomum furcigerum (Olsson 1867) Yamaguti 1954	Merluccius productus	Kovalenko 1970
Fellodistomum sebastodis Yamaguti and Matumura 1942	Sebastes alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
Gonocerca oshoro Shimazu 1970	Coryphaenoides pectoralis	Shimazu 1970
Hemiurus levinseni Odhner 1905	Boreogadus saida	Dunagan 1957
	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
Lampritrema miescheri (Zschokke 1890) Margolis 1962	Brama japonica	Margolis 1962
Lecithaster gibbosus (Rudolphi 1802) Luhe 1901	Clupea harengus pallasi	Arthur and Arai 1980
	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
	Sebastes alutus	Mamaev 1965
Lecithochirium sp.	Merluccius productus	Kovalenko 1970
Lecithophyllum botryophorum (Olsson 1868) Odhner 1905	Oncorhynchus gorbuscha	Margolis 1957, 1958a
	O. nerka	Margolis 1963, 1958a
	Sebastes alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
Lecithophyllum spaerolecithum (Manter 1925) Odhner 1927	Sebastes alutus	Mamaev 1965
Neohelicometra sebastis Sekerak and Arai 1974	Sebastes alutus	Sekerak 1975
Neolepidapedon sebastisci (Yamaguti 1938) Manter 1954	Sebastes aleutianus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Opechona alaskensis Ward and Fillingham 1934	Porichthys notatus	Ward and Fillingham 1934
	Sebastes alutus	Sekerak 1975, Mamaev 1965
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975

Parasite	Host	Reference
Adult Trematoda (continued)		
Opechona occidentalis Montgomery 1957	Sebastes ciliatus	Sekerak 1975
Parahemiurus merus (Linton 1910) Woolcock 1935	Oncorhynchus gorbuscha	Margolis 1957
Peracreadium gasterostei (Dunagan 1957)	Gasterosteus aculeatus	Dunagan 1957
Phyllodistomum lysteri Miller 1940	Dallia pectoralis	Dunagan 1957
Phyllodistomum sp.	Salvelinus alpinus Thymallus arcticus	Mudry and McCart 1976 Dunagan 1957
Podocotyle atomon (Rudolphi 1802) Odhner 1905	Sebastes alutus	Mamaev 1965
Podocotyle reflexa (Creplin 1825) Odhner 1905	Sebastes reflexa	Mamaev 1965
Podocotyle sp.	Sebastes aleutianus S. alutus S. ciliatus S. polyspinis S. zacentrus	Sekerak 1975 Sekerak 1975 Sekerak 1975 Sekerak 1975 Sekerak 1975
Pronoprymna petrowi (Layman 1930) Bray and Gibson 1980	Clupea harengus pallasi Oncorhynchus gorbuscha O. nerka	Arthur and Arai 1980 Margolis and Ching 1965 Margolis and Ching 1965
Prosorhynchoides basargini (Layman 1930) Margolis and Arthur 1978	Oncorhynchus gorbuscha O. nerka	Margolis 1957 Margolis 1963
Prosorhynchoides sp.	Osmerus mordax	Neiland 1962b as Bucephalopsis sp.
Prosorhynchus crucibulum (Rudolphi 1819) Odhner 1905	Sebastes aleutianus S. alutus S. ciliatus S. zacentrus	Sekerak 1975 Sekerak 1975 Sekerak 1975 Sekerak 1975
Prosorhynchus mizelli Kruse 1977	Aptocyclus ventricosus	Kruse 1977

Parasite	Host	Reference
Adult Trematoda (continued)		
Psettarium sebastodorum Holmes 1971	*Sebastes alutus* *S. polyspinis* *S. zacentrus*	Sekerak 1975 Sekerak 1975 Sekerak 1975
Pseudopecoelus nossamani Kruse 1977	*Hippoglossus stenolepis*	Kruse 1977
Stephanostomum californicum Manter and Van Cleave 1951	*Anoplopoma fimbria*	Kovalenko 1970
Stephanostomum dentatum (Linton 1900) Linton 1940	*Sebastes aleutianus*	Sekerak 1975
Tubulovesicula lindbergi (Layman 1930) Yamaguti 1934	*Oncorhynchus gorbuscha* *O. nerka*	Margolis 1957 Margolis 1963
Urinatrema aspinosum Schiller 1956	*Hexagrammos lagocephalus*	Schiller 1956
	LARVAL TREMATODA	
Diplostomulum sp.	*Oncorhynchus nerka*	Margolis 1957
Nanophyetus salmincola Chapin 1926	*Oncorhynchus* sp.	Farrell 1964
Prosorhynchoides basargini (Layman 1930) Margolis and Arthur 1978	*Clupea harengus pallasi*	Arthur and Arai 1980
Prosorhynchus sp.	*Hemilepidotus hemilepidotus*	Kruse 1977
Rhipidocotyle sp.	*Clupea harengus pallasi*	Arthur and Arai 1980
Stephanostomum sp.	*Atheresthes stomias*	Kovalenko 1969
Tetracotyle sp.	*Oncorhynchus gorbuscha* *O. nerka*	Margolis 1957 Margolis 1963
	ADULT CESTODA	
Bothrimonus sturionis Duvernoy 1842	*Coregonus* sp. *Oncorhynchus gorbuscha* *O. nerka* *Salvelinus alpinus* *S. malma*	Burt and Sandeman 1969 Margolis 1963 Mudry and McCart 1976 Cooper 1921

Parasite	Host	Reference
Adult Cestoda (continued)		
Bothriocephalus osphariichthydis Yamaguti 1934	Merluccius productus	Kovalenko 1970
Bothriocephalus scorpii (O. F. Muller 1776) Rudolphi 1808	Sebastes alutus	Mamaev 1965
Cyathocephalus truncatus (Pallas 1781) Kessler 1868	Esox lucius	Dunagan 1957
	Oncorhynchus kisutch	Riis 1974
	Salvelinus alpinus	Mudry and McCart 1976
	S. namaycush	Dunagan 1957
Diplocotyle olrikii Krabbe 1874	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
Eubothrium crassum (Bloch 1779) Nybelin 1922	Salmo gairdneri	Dunagan 1957
	Salvelinus alpinus	Mudry and McCart 1976
Eubothrium salvelini (Schrank 1790) Nybelin 1922	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Pennell et al. 1973
Eubothrium sp.	Oncorhynchus kisutch	Riis 1974
	O. nerka	Margolis 1963
	O. tshawytscha	Riis 1974
	Salmo gairdneri	Riis 1974
	Salvelinus malma	Riis 1974
Glaridacris catostomi Cooper 1920	Catostomus commersoni	Dunagan 1957
Monorygma perfectum (Van Beneden 1853)	Somniosus pacificus	Linton 1924
Nybelinia surmenicola Okada in Dollfus 1929	Lamna ditropis	Shimazu 1975
Pedibothrium pinguicollum (Sleggs 1927) Price 1938	Raja sp.	Price 1938
Proteocephalus filicollis (Rudolphi 1802) Weinland 1858	Prosopium cylindraceum	Dunagan 1957

Parasite	Host	Reference
Adult Cestoda (continued)		
Proteocephalus sp.	Dallia pectoralis	Dunagan 1957
	Oncorhynchus kisutch	Riis 1974
	O. nerka	Pennell et al. 1973
	Prosopium cylindraceum	Riis 1974
	Salmo gairdneri	Riis 1974
	Salvelinus alpinus	Mudry and McCart 1976
	S. malma	Riis 1974
	Thymallus arcticus	Riis 1974
Triaenophorus crassus Forel 1868	Esox lucius	Dunagan 1957
	Salvelinus namaycush	Dunagan 1957
	LARVAL CESTODA	
Bothriocephalus scorpii (Muller 1776) Rudolphi 1808	Sebastes alutus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Bothriocephalus sp.	Merluccius productus	Kovalenko 1970
Diphyllobothrium dalliae Rausch 1956	Dallia pectoralis	Rausch 1956
Diphyllobothrium dendriticum (Nitzsch 1824) Luhe 1910	Salmo gairdneri	Hilliard 1960
Diphyllobothrium osmeri (Von Linstow 1878)	Osmerus mordax	Hilliard 1960
Diphyllobothrium phocarum (Fabricius 1780)	Eleginus gracilis	Hilliard 1960
Diphyllobothrium ursi Rausch 1954	Oncorhynchus nerka	Rausch 1954, Hilliard 1960
Diphyllobothrium sp.	Dallia pectoralis	Colyar 1963
	Merluccius productus	Kovalenko 1970
	Oncorhynchus nerka	Margolis 1963
	Pungitius pungitius	Colyar 1963
	Salmo gairdneri	Babero and Rausch 1953, Needham and Behnke 1965
Ligula intestinalis (Linn. 1758) Gmelin 1790	Salmo gairdneri	Dunagan 1957

Parasite	Host	Reference
Larval Cestoda (continued)		
Nybelinia surmenicola (Okada in Dollfus 1929)	Anoplopoma fimbria	Kovalenko 1970
	Atheresthes stomias	Kovalenko 1969
	Clupea harengus pallasi	Arthur and Arai 1980
	Hexanchus griseus	Hart 1936
	Merluccius productus	Kovalenko 1970
	Oncorhynchus nerka	Margolis 1957
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975
Nybelinia sp.	Theragra chalcogramma	Akmerov 1951
Phyllobothrium caudatum (Zschokke and Heitz 1914) Zmeev 1936	Oncorhynchus gorbuscha	Margolis 1957
	O. keta	Canavan 1928
	O. nerka	Margolis 1963
Phyllobothrium sp.	Oncorhynchus gorbuscha	Riis 1974
	O. keta	Riis 1974
	O. kisutch	Riis 1974
	O. nerka	Riis 1974
	O. tshawytscha	Riis 1974
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975
Proteocephalus sp.	Oncorhynchus nerka	Margolis 1963
Schistocephalus solidus (Muller 1776) Steenstrup 1857	Gasterosteus aculeatus	Cooper 1918, Hilliard 1960, Valdez 1974
	Pungitius pungitius	Hilliard 1960
Scolex pleuronectis Muller 1788	Clupea harengus pallasi	Arthur and Arai 1980
	Sebastes alutus	Mamaev 1965
Scolex sp.	Anoplopoma fimbria	Kovalenko 1970
	Merluccius productus	Kovalenko 1970
Tetrarhynchus sp.	Hexanchus griseus	Hart 1936
Triaenophorus crassus Forel 1868	Oncorhynchus keta	Uzmann and Hesselholt 1957
	O. nerka	Margolis 1963
	Thymallus arcticus	Dunagan 1957
Triaenophorus sp.	Dallia pectoralis	Hilliard 1960

Parasite	Host	Reference
	ADULT NEMATODA	
Ascarophis pacificus Zhukov 1960	Sebastes alutus	Mamaev 1965
Ascarophis sp.	Oncorhynchus gorbuscha	Margolis 1957
Capillaria sp.	Oncorhynchus nerka	Margolis 1963
Cucullanus heterochrous Rudolphi 1802	Sebastes alutus	Mamaev 1965
Cucullanus sp.	Oncorhynchus tshawytscha	Riis 1974
	Salmo gairdneri	Riis 1974
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	Thymallus arcticus	Sekerak 1975
Cystidicola farionis Fischer 1798	Oncorhynchus gorbuscha	Margolis 1967
	O. nerka	Margolis 1967
	Salvelinus alpinus	Pennell et al. 1973
	S. malma	Ko and Anderson 1969
	S. namaycush	Dunagan 1957
Hysterothylacium aduncum (Rudolphi 1802)	Merluccius productus	Kovalenko 1970
	Sebastes aleutianus	Kovalenko 1970
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975
Hysterothylacium melanogrammi (Smedley 1934) Seardorff and Overstreet 1981	Merluccius productus	Kovalenko 1970
Philonema oncorhynchi Kuitunen-Ekbaum 1933	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963, Dunagan 1957
Rhabdochona sp.	Oncorhynchus nerka	Pennell et al. 1973
Salvelinema salmonicola (Ishii 1916) Margolis 1966	Oncorhynchus nerka	Margolis 1967
Truttaedacnitis alpinus (Mudry and McCart 1974) Pybus, Anderson, and Uhazy 1978	Salvelinus alpinus	Mudry and McCart 1974

Parasite	Host	Reference
	LARVAL NEMATODA	
Anisakis simplex (Rudolphi 1809) Dujardin 1845	Clupea harengus pallasi	Arthur and Arai 1980
Anisakis sp.	Dallia pectoralis	Dunagan 1957
	Gadus macrocephalus	Stiles and Hassall 1899
	Merluccius productus	Kovalenko 1970
	Oncorhynchus gorbuscha	Margolis 1957
	O. keta	Riis 1974
	O. kisutch	Riis 1974
	O. nerka	Pennell et al. 1973
	O. tshawytscha	Riis 1974
	Theragra chalcogramma	Stiles and Hassall 1899, Scheffer and Slipp 1944
	Thymallus arcticus	Dunagan 1957
Contracaecum rudolphii Hartwich 1964	Salmo gairdneri	Riis 1974
Contracaecum sp.	Anoplopoma fimbria	Kovalenko 1970
	Atheresthes stomias	Kovalenko 1969
	Boreogadus saida	Dunagan 1957
	Clupea harengus pallasi	Arthur and Arai 1980
	Gasterosteus aculeatus	Dunagan 1957
	Merluccius productus	Kovalenko 1970
	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975
	Stenobrachius leucopsarus	Collard 1968
Hysterothylacium aduncum (Rudolphi 1802)	Boreogadus saida	Dunagan 1957
	Clupea harengus pallasi	Arthur and Arai 1980
Philonema oncorhynchi Kuitunen-Ekbaum 1933	Oncorhynchus kisutch	Riis 1974
	Salmo gairdneri	Riis 1974
Philonema sp.	Salmo gairdneri	Needham and Behnke 1965

Parasite	Host	Reference
Larval Nematoda (continued)		
Phocanema decipiens (Krabbe 1878) Myers 1959	*Gadus macrocephalus*	Scheffer and Slipp 1944
	Hemilepidotus hemilepidotus	Schiller 1954
	Hexagrammos lagocephalus	Rausch 1953, Schiller 1954
	Oncorhynchus nerka	Margolis 1963
Phocanema sp.	*Anaplopoma fimbria*	Kovalenko 1970
	Atheresthes stomias	Kovalenko 1969
	Oncorhynchus nerka	Margolis 1957
	O. tshawytscha	Riis 1974
	Osmerus mordax	Hilliard 1960
Raphidascaris sp.	*Dallia pectoralis*	Dunagan 1957
	Esox lucius	Dunagan 1957
	Oncorhynchus tshawytscha	Riis 1974
	Salvelinus namaycush	Riis 1974, Neiland 1962a
ACANTHOCEPHALA		
Acanthocephalus lucii (Muller 1776) Luhe 1911	*Gasterosteus aculeatus*	Dunagan 1957
Bolbosoma caenoforme (Heitz 1920) Meyer 1933	*Oncorhynchus nerka*	Pennell et al. 1973, Margolis 1963
	Sebastes alutus	Mamaev 1965
Bolbosoma sp.	*Oncorhynchus gorbuscha*	Margolis 1957
Corynosoma hadweni Van Cleave 1953	*Oncorhynchus nerka*	Margolis 1958b
	Osmerus mordax	Golvan 1959
Corynosoma reductum Von Lindstow 1905	*Sebastes alutus*	Mamaev 1965
Corynosoma semerme (Forssell 1904)	*Oncorhynchus nerka*	Margolis 1958b
	Osmerus mordax	Neiland 1962b
Corynosoma similis Neiland 1962	*Osmerus mordax*	Neiland 1962b
Corynosoma strumosum (Rudolphi 1802) Luhe 1904	*Atheresthes stomias*	Kovalenko 1969
	Clupea harengus pallasi	Arthur and Arai 1980
	Oncorhynchus gorbuscha	Margolis 1957, 1958b
	O. nerka	Margolis 1958b
	Osmerus mordax	Neiland 1962b

Parasite	Host	Reference
Acanthocephala (continued)		
Corynosoma villosum (Van Cleave 1953)	Clupea harengus pallasi	Arthur and Arai 1980
	Oncorhynchus gorbuscha	Margolis 1957, 1958b
	O. nerka	Margolis 1963
Corynosoma sp.	Anoplopoma fimbria	Kovalenko 1970
	Boreogadus saida	Dunagan 1957
	Hexagrammos lagocephalus	Schiller 1954
	Hemilepidotus hemilepidotus	Schiller 1954
	Oncorhynchus gorbuscha	Margolis 1957
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Echinorhynchus gadi (Muller 1776)	Boreogadus saida	Dunagan 1957
	Oncorhynchus gorbuscha	Margolis 1957
	O. nerka	Margolis 1963
	Sebastes aleutianus	Sekerak 1975
	S. alutus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Echinorhynchus sp.	Atheresthes stomias	Kovalenko 1969
Metechinorhynchus salmonis (Muller 1784) Petrochenko 1956	Boreogadus saida	Dunagan 1957
	Salvelinus alpinus	Mudry and McCart 1976
Neoechinorhynchus rutili (Muller 1780) Hamann 1892	Coregonus sardinella	Schmidt 1965
	Dallia pectoralis	Dunagan 1957
	Gasterosteus aculeatus	Van Cleave and Lynch 1950
	Lota lota	Schmidt 1965
	Oncorhynchus kisutch	Riis 1974
	O. nerka	Margolis 1963
	Salmo gairdneri	Riis 1974
	Salvelinus alpinus	Van Cleave and Lynch 1950
	S. malma	Van Cleave and Lynch 1950
Neoechinorhynchus tenellus (Van Cleave 1913) Van Cleave 1919	Esox lucius	Dunagan 1957
Neoechinorhynchus tumidus Van Cleave and Bangham 1949	Coregonus laurettae	Schmidt 1965
	C. nasus	Schmidt 1965
	Coregonus sp.	Schmidt 1965
	Oncorhynchus kisutch	Riis 1974
	Prosopium cylindraceum	Schmidt 1965
	Salmo gairdneri	Schmidt 1965

Parasite	Host	Reference
Acanthocephala (continued)		
Neoechinorhynchus sp.	Oncorhynchus gorbuscha	Margolis 1957
Paracanthocephalus rauschi Schmidt 1969	Thymallus arcticus	Schmidt 1969
Rhadinorhynchus cololabris Laurs and McCauley 1964	Salmo gairdneri	Hughes 1973
Rhadinorhynchus trachuri Harada 1935	Oncorhynchus nerka	Margolis 1957
	HIRUDINEA	
Levinsenia rectangulata (Levinson 1882)	Gadus macrocephalus	Moore and Meyer 1951
	Microgadus proximus	Moore and Meyer 1951
	Myoxocephalus polyacanthocephalus	Moore and Meyer 1951
	Theragra chalcogramma	Akhmerov 1951
	ISOPODA	
Aega symmetrica Richardson	Unnamed fish	Hatch 1947
Livoneca californica Schioedte and Meinertz 1884	Smelt	Hatch 1947
Rocinela angustata Richardson	Hippoglossus stenolepis	Hatch 1947
Rocinela belliceps (Stimpson 1864) Richardson 1899	Gadus macrocephalus	Hatch 1947
	Hippoglossus stenolepis	Hatch 1947
	COPEPODA	
Acanthochondria cornuta (Muller 1776) Oakley 1930	Hippoglossus stenolepis	Wilson 1935
Acanthochondria sp.	Merluccius productus	Kovalenko 1970
Bomolochus cuneatus Fraser 1920	Clupea harengus pallasi	Arthur and Arai 1980
	Oncorhynchus gorbuscha	Vervoort 1964

Parasite	Host	Reference
Copepoda (continued)		
Brachiella robusta (Wilson 1912) Kabata 1970	*Sebastes aleutianus*	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Caligus clemensi Parker and Margolis 1964	*Clupea harengus pallasi*	Arthur and Arai 1980
Chondracanthus lotellae (Wilson 1936) Yamaguti 1963	*Myoxocephalus polyacanthocephalus*	Wilson 1935
Chondracanthus pinguis Wilson 1912	*Sebastes aleutianus*	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975
Chondracanthus triventricosus Sekerak 1970	*Sebastes alutus*	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975
Clavella adunca (Strøm 1762) Dollfus 1953	*Gadus macrocephalus*	Wilson 1908
	Theragra chalcogramma	Akhmerov 1951
Clavella canaliculata Wilson 1915	*Microgadus proximus*	Wilson 1915, 1920
Clavella irina Wilson 1915	*Gadus macrocephalus*	Wilson 1915, 1920
Clavella parva Wilson 1912	*Sebastes aleutianus*	Sekerak 1975
	S. alutus	Sekerak 1975
	S. melanops	Sekerak 1975
Clavella perfida Wilson 1915	*Theragra chalcogramma*	Wilson 1915
Clavella recta Wilson 1915	*Sebastes melanops*	Wilson 1915, 1920
Colobomatus kyphosus Sekerak 1970	*Sebastes aleutianus*	Sekerak 1975
	S. alutus	Sekerak 1975
	S. ciliatus	Sekerak 1975
	S. polyspinis	Sekerak 1975
	S. zacentrus	Sekerak 1975

Parasite	Host	Reference
Copepoda (continued)		
Diocus frigidus (Hansen 1923)	Lycodes turneri	Walters 1953
Echthrogaleus coleoptratus (Guerin 1837) Steenstrup and Lutken 1861	"Shark"	Wilson 1907, 1908, 1920
Ergasilus auritus Markevich 1940	Gasterosteus aculeatus	Roberts 1963
	Oncorhynchus nerka	Roberts 1963
Ergasilus turgidus Fraser 1920	Gasterosteus aculeatus	Cope 1959
	Oncorhynchus nerka	Cope 1959
Haemobaphes theragrae Yamaguti 1939	Sebastes alutus	Sekerak 1975
	S. zacentrus	Sekerak 1975
Haemobaphes sp.	Merluccius productus	Kovalenko 1970
Lepeophtheirus appendiculatus Krøyer 1863	Hippoglossus stenolepis	Wilson 1935
Lepeophtheirus cuneifer Kabata 1974	Gadus macrocephalus	Kabata 1974
	Hexagrammos lagocephalus	Kabata 1974
	Hippoglossus stenolepis	Kabata 1974
	Isopsetta isolepis	Kabata 1974
	Leptocottus armatus	Kabata 1974
	Lumpenus sagitta	Kabata 1974
	Microgadus proximus	Kabata 1974
	Raja binoculata	Kabata 1974
	Squalus acanthias	Kabata 1974
	Theragra chalcogramma	Kabata 1974
Lepeophtheirus marcepes Wilson 1944	Pleuronectes quadrituberculatus	Wilson 1944
Lepeophtheirus parviventris Wilson 1905	Gadus macrocephalus	Wilson 1905
	Hippoglossus stenolepis	Wilson 1905
	Lepidopsetta bilineata	Wilson 1905
	Platichthys stellatus	Townsend 1938
	Pleurogrammus monopterygius	Wilson 1908
Lepeophtheirus salmonis (Krøyer 1837) Verrill 1873	Oncorhynchus gorbuscha	Wilson 1905
	O. nerka	Wilson 1908
	O. tshawytscha	Wilson 1908
	Salvelinus malma	Wilson 1908
Naobranchia occidentalis Wilson 1915	Gadus macrocephalus	Wilson 1915

Parasite	Host	Reference
Copepoda (continued)		
Parabrachiella sp.	*Merluccius productus*	Kovalenko 1970
Salmincola californiensis (Dana 1852) Wilson 1915	*Oncorhynchus gorbuscha*	Wilson 1908
	O. kisutch	Riis 1974
	O. nerka	Wilson 1908, Margolis 1963
	Salmo gairdneri	Riis 1974
Salmincola carpionis (Krøyer 1837) Wilson 1915	*Salvelinus alpinus*	Mudry and McCart 1976
	S. malma	Wilson 1908
Salmincola edwardsi (Olsson 1869) Wilson 1915	*Salmo gairdneri*	Dunagan 1957
	Salvelinus alpinus	Dunagan 1957
	Thymallus arcticus	Dunagan 1957
Salmincola extensus (Kessler 1868) Kabata 1969	*Coregonus* sp.	Wilson 1908
Salmincola extumescens (Gadd 1901) Wilson 1915	*Coregonus clupeaformis*	Wilson 1908
Salmincola thymalli (Kessler 1868) Wilson 1915	*Prosopium cylindraceum*	Riis 1974
	Thymallus arcticus	Riis 1974
Sarcotaces arcticus Collett 1874	*Sebastes aleutianus*	Sekerak 1975
	S. alutus	Sekerak 1975
	S. flavidus	Avdeev and Avdeev 1975
Thersitina gasterostei (Pagenstecher 1861) Norman 1905	*Gasterosteus aculeatus*	Valdez 1974
	MOLLUSCA	
Anodonta beringiana (Middendorf)	*Gasterosteus aculeatus*	Cope 1959
	Oncorhynchus nerka	Cope 1959
Anodonta oregonensis (Lea 1837)	*Gasterosteus aculeatus*	Moles 1980
	Oncorhynchus kisutch	Moles 1980

HEXANCHIDAE, cow sharks

Hexanchus griseus (Bonnaterre), sixgill shark

Cestoda
*Nybelinia surmenicola**
Tetrahynchus sp.*

LAMNIDAE, mackerel sharks

Lamna ditropis Hubbs and Follett, salmon shark

Cestoda
Nybelinia surmenicola

SQUALIDAE, dogfish sharks

Somniosus pacificus Bigelow and Schroeder, Pacific sleeper shark

Monogenea
Squalonchotyle somniosi
Cestoda
Monorygma perfectum

Squalus acanthias Linnaeus, spiny dogfish

Copepoda
Lepeophtheirus cuneifer

RAJIDAE, skates

Raja binoculata Girard, big skate

Copepoda
Lepeophtheirus cuneifer

Raja sp.

Monogenea
Acanthocotyle williamsi
Cestoda
Pedibothrium pinguicollum

CLUPEIDAE, herring

Clupea harengus pallasi Valenciennes, Pacific herring

Protozoa
Eimeria clupearum
Eimeria nishin
Myxospora
Ortholinea orientalis

Clupeidae, Clupea harengus pallasi (continued)

Trematoda
Brachyphallus crenatus
Lecithaster gibbosus
Prosorhynchoides basargini*
Pronoprymna petrowi
Rhipidocotyle sp.*
Cestoda
Nybelinia surmenicola*
Scolex pleuronectis*
Nematoda
Anisakis simplex*
Contracaecum sp.*
Hysterothylacium aduncum*
Acanthocephala
Corynosoma strumosum
Corynosoma villosum
Copepoda
Bomolochus cuneatus
Caligus clemensi

SALMONIDAE, trouts

Coregonus clupeaformis (Mitchill), lake whitefish

Copepoda
Salmincola extumescens

Coregonus laurettae Bean, Bering cisco

Acanthocephala
Neoechinorhynchus tumidus

Coregonus nasus (Pallas), broad whitefish

Acanthocephala
Neoechinorhynchus tumidus

Coregonus sardinella Valenciennes, least cisco

Acanthocephala
Neoechinorhynchus rutili

Coregonus sp.

Cestoda
Bothrimonus sturionis
Acanthocephala
Neoechinorhynchus tumidus
Copepoda
Salmincola extensus

Salmonidae (continued)

Oncorhynchus gorbuscha (Walbaum), pink salmon

- Myxozoa
  - *Henneguya salminicola*
- Trematoda
  - *Brachyphallus crenatus*
  - *Derogenes varicus*
  - *Hemiurus levinseni*
  - *Lecithaster gibbosus*
  - *Lecithophyllum botryophorum*
  - *Parahemiurus merus*
  - *Prosorhynchoides basargini*
  - *Pronoprymna petrowi*
  - *Tetracotyle* sp.
  - *Tubulovesicula lindbergi*
- Cestoda
  - *Bothrimonus sturionis*
  - *Diplocotyle olrikii*
  - *Eubothrium salvelini*
  - *Phyllobothrium caudatum**
  - *Phyllobothrium* sp.*
- Nematoda
  - *Anisakis* sp.*
  - *Ascarophis* sp.
  - *Contracaecum* sp.*
  - *Cystidicola farionis*
  - *Philonema oncorhynchi*
- Acanthocephala
  - *Bolbosoma* sp.
  - *Corynosoma* sp.
  - *Corynosoma strumosum*
  - *Corynosoma villosum*
  - *Echinorhynchus gadi*
  - *Neoechinorhynchus* sp.
- Copepoda
  - *Bomolochus cuneatus*
  - *Lepeophtheirus salmonis*
  - *Salmincola californiensis*

Oncorhynchus keta (Walbaum), chum salmon

- Myxozoa
  - *Henneguya salminicola*
- Cestoda
  - *Phyllobothrium caudatum**
  - *Phyllobothrium* sp.*
  - *Triaenophorus crassus**
- Nematoda
  - *Anisakis* sp.*

Salmonidae (continued)

Oncorhynchus kisutch (Walbaum), coho salmon

Myxozoa
- *Henneguya salminicola*

Monogenea
- *Tetraonchus alaskensis*

Cestoda
- *Cyathocephalus truncatus*
- *Eubothrium* sp.
- *Phyllobothrium* sp.*
- *Proteocephalus* sp.

Nematoda
- *Anisakis* sp.*
- *Philonema oncorhynchi**

Acanthocephala
- *Neoechinorhynchus rutili*
- *Neoechinorhynchus tumidus*

Copepoda
- *Salmincola californiensis*

Mollusca
- *Anodonta oregonensis*

Oncorhynchus nerka (Walbaum), sockeye salmon

Myxozoa
- *Chloromyxum wardi*
- *C. coregoni*
- *Henneguya salminicola*
- *Myxobolus krokhini*

Monogenea
- *Gyrodactyloides strelkowi*
- *Tetraonchus alaskensis*

Trematoda
- *Brachyphallus crenatus*
- *Crepidostomum farionis*
- *Crepidostomum* sp.
- *Derogenes varicus*
- *Diplostomulum* sp.*
- *Hemiurus levinseni*
- *Lecithaster gibbosus*
- *Lecithophyllum botryophorum*
- *Prosorhynchoides basargini*
- *Pronoprymna petrowi*
- *Tetracotyle* sp.*
- *Tubulovesicula lindbergi*

Salmonidae, Oncorhynchus nerka (continued)

Cestoda
- Bothrimonus sturionis
- Diphyllobothrium sp.*
- Diphyllobothrium ursi*
- Diplocotyle olrikii
- Eubothrium salvelini
- Eubothrium sp.
- Nybelinia surmenicola*
- Phyllobothrium caudatum*
- Phyllobothrium sp.*
- Proteocephalus sp.
- Proteocephalus sp.*
- Triaenophorus crassus*

Nematoda
- Anisakis sp.*
- Capillaria sp.
- Contracaecum sp.*
- Cystidicola farionis
- Philonema oncorhynchi
- Phocanema decipiens*
- Phocanema sp.*
- Rhabdochona sp.
- Salvelinema salmonicola

Acanthocephala
- Bolbosoma caenoforme
- Corynosoma hadweni
- Corynosoma semerme
- Corynosoma strumosum
- Corynosoma villosum
- Echinorhynchus gadi
- Neoechinorhynchus rutili
- Rhadinorhynchus trachuri

Copepoda
- Ergasilus auritus
- Ergasilus turgidus
- Lepeophtheirus salmonis
- Salmincola californiensis

Mollusca
- Anodonta beringiana

Oncorhynchus tshawytscha (Walbaum), chinook salmon

Myxozoa
- Henneguya salminicola

Trematoda
- Brachyphallus crenatus

Cestoda
- Eubothrium sp.
- Phyllobothrium sp.*

Salmonidae, Oncorhynchus tschawytscha (continued)

Nematoda
Anisakis sp.*
Cucullanus sp.*
Phocanema sp.*
Raphidascaris sp.*
Copepoda
Lepeophtheirus salmonis

Oncorhynchus sp.

Trematoda
Nanophyetus salmincola*

Prosopium cylindracaeum (Pallas), round whitefish

Monogenea
Tetraonchus variabilis
Cestoda
Proteocephalus filicollis
Proteocephalus sp.
Acanthocephala
Neoechinorhynchus tumidus
Copepoda
Salmincola thymalli

Salmo clarki Richardson, cutthroat trout

Monogenea
Tetraonchus alaskensis

Salmo gairdneri Richardson, rainbow trout

Trematoda
Crepidostomum farionis
Crepidostomum sp.
Cestoda
Diphyllobothrium dendriticum*
Diphyllobothrium sp.*
Eubothrium crassum
Eubothrium sp.
Ligula intestinalis*
Proteocephalus sp.
Nematoda
Contracaecum rudolphii*
Cucullanus sp.
Philonema oncorhynchi*
Philonema sp.*
Acanthocephala
Neoechinorhynchus rutili
Neoechinorhynchus tumidus
Rhadinorhynchus cololabris

Salmonidae, Salmo gairdneri (continued)

Copepoda
Salmincola californiensis
Salmincola edwardsi

Salvelinus alpinus (Linnaeus), Arctic char

Trematoda
Bunodera luciopercae
Crepidostomum farionis
Phyllodistomum sp.
Cestoda
Bothrimonus sturionis
Cyathocephalus truncatus
Eubothrium crassum
Proteocephalus sp.
Nematoda
Cystidicola farionis
Truttaedacnitis alpinis
Acanthocephala
Metechinorhynchus salmonis
Neoechinorhynchus rutili
Copepoda
Salmincola carpionis
Salmincola edwardsi

Salvelinus malma (Walbaum), Dolly Varden

Monogenea
Tetraonchus alaskensis
Trematoda
Crepidostomum sp.
Cestoda
Bothrimonus sturionis
Eubothrium sp.
Proteocephalus sp.
Nematoda
Cystidicola farionis
Acanthocephala
Neoechinorhynchus rutili
Copepoda
Lepeophtheirus salmonis
Salmincola carpionis

Salvelinus namaycush (Walbaum), lake trout

Trematoda
Crepidostomum farionis
Cestoda
Cyathocephalus truncatus
Triaenophorus crassus
Nematoda
Cystidicola farionis
Raphidascaris sp.*

Salmonidae (continued)

Thymallus arcticus (Pallas), Arctic grayling

Monogenea
- *Tetraonchus rauschi*

Trematoda
- *Crepidostomum isostomum*
- *Phyllodistomum* sp.

Cestoda
- *Proteocephalus* sp.
- *Triaenophorus crassus**

Nematoda
- *Anisakis* sp.*
- *Cucullanus* sp.

Acanthocephala
- *Paracanthocephalus rauschi*

Copepoda
- *Salmincola edwardsi*
- *S. thymalli*

OSMERIDAE, smelts

Osmerus mordax (Mitchill), rainbow smelt

Trematoda
- *Brachyphallus crenatus*
- *Prosorhynchoides* sp.

Cestoda
- *Diphyllobothrium osmeri**

Nematoda
- *Phocanema* sp.*

Acanthocephala
- *Corynosoma hadweni*
- *C. semerme*
- *C. similis*
- *C. strumosum*

UMBRIDAE, mudminnows

Dallia pectoralis Bean, Alaska blackfish

Trematoda
- *Phyllodistomum lysteri*

Cestoda
- *Diphyllobothrium dalliae**
- *Diphyllobothrium* sp.*
- *Proteocephalus* sp.
- *Triaenophorus* sp.*

Nematoda
- *Anisakis* sp.*
- *Raphidascaris* sp.*

Acanthocephala
- *Neoechinorhynchus rutili*

ESOCIDAE, pikes

Esox lucius Linnaeus, northern pike

Trematoda
Crepidostomum farionis
Cestoda
Cyathocephalus truncatus
Triaenophorus crassus
Nematoda
Raphidascaris sp.*
Acanthocephala
Neoechinorhynchus tenellus

MYCTOPHIDAE, lanternfishes

Stenobrachius leucopsarus (Eigenmann and Eigenmann), northern lampfish

Nematoda
Contracaecum sp.*

CATOSTOMIDAE, suckers

Catostomus commersoni (Lacepède), white sucker

Cestoda
Glaridacris catostomi

BATRACHOIDIDAE, toadfishes

Porichthys notatus Girard, plain midshipman

Trematoda
Opechona alaskensis

GADIDAE, codfish

Boreogadus saida (Lepechin), Arctic cod

Trematoda
Hemiurus levinseni
Nematoda
Contracaecum sp.*
*Hysterothylacium aduncum**
Acanthocephala
Corynosoma sp.
Echinorhynchus gadi
Metechinorhynchus salmonis

Gadidae (continued)

Eleginus gracilis (Tilesius), saffron cod

Cestoda
*Diphyllobothrium phocarum**

Gadus macrocephalus Tilesius, Pacific cod

Nematoda
Anisakis sp.*
*Phocanema decipiens**
Hirudinea
Levinsenia rectangulata
Isopoda
Rocinela belliceps
Copepoda
Clavella adunca
C. irina
Lepeophtheirus cuneifer
Lepeophtheirus parviventris
Naobranchia occidentalis

Lota lota (Linnaeus), burbot

Acanthocephala
Neoechinorhynchus rutili

Merluccius productus (Ayres), Pacific hake

Trematoda
Aponurus argentini
Aporocotyle margolisi
Derogenes macrostoma
D. varicus
Fellodistomum furcigerum
Lecithochirium sp.
Cestoda
Bothriocephalus osphariichthydis
Bothriocephalus sp.*
Diphyllobothrium sp.*
*Nybelinia surmenicola**
Scolex sp.*
Nematoda
Anisakis sp.*
Contracaecum sp.*
Hysterothylacium aduncum
H. melanogrammi
Copepoda
Acanthochondria sp.
Haemobaphes sp.
Parabrachiella sp.

Gadidae (continued)

Microgadus proximus (Girard), Pacific tomcod

Copepoda
Lepeophtheirus cuneifer
Clavella canaliculata
Hirudinea
Levinsenia rectangulata

Theragra chalcogramma (Pallas), walleye pollock

Cestoda
Nybelinia sp.*
Nematoda
Anisakis sp.*
Copepoda
Clavella adunca
Clavella perfida
Lepeophtheirus cuneifer

ZOARCIDAE, eelpouts

Lycodes palearis Gilbert, wattled eelpout

Trematoda
Derogenes varicus

Lycodes turneri Bean, polar eelpout

Copepoda
Diocus frigidus

MACROURIDAE, grenadiers

Coryphaenoides cinereus

Myxozoa
Ceratomyxa asymmetrica
Myxoproteus abyssus

Coryphaenoides longifilis

Myxozoa
Myxoproteus abyssus
Zschokkella meglitschi

Coryphaenoides pectoralis (Gilbert), giant rattail

Monogenea
Cyclocotyloides pinguis
Trematoda
Gonocerca oshoro

GASTEROSTEIDAE, sticklebacks

Gasterosteus aculeatus Linnaeus, threespine stickleback

Trematoda
- *Bunodera* sp.
- *Peracreadium gasterostei*

Cestoda
- *Schistocephalus solidus**

Nematoda
- *Contracaecum* sp.*

Acanthocephala
- *Acanthocephalus lucii*
- *Neoechinorhynchus rutili*

Copepoda
- *Ergasilus auritus*
- *Ergasilus turgidus*
- *Thersitina gasterostei*

Mollusca
- *Anodonta beringiana*
- *Anodonta oregonensis*

Pungitius pungitius (Linnaeus), ninespine stickleback

Cestoda
- *Diphyllobothrium* sp.*
- *Schistocephalus solidus**

BRAMIDAE, pomfrets

Brama japonica Hilgendorf, Pacific pomfret

Trematoda
- *Lampritrema miescheri*

BATHYMASTERIDAE, ronquils

Ronquilus jordani (Gilbert), northern ronquil

Trematoda
- *Derogenes varicus*

STICHAEIDAE, pricklebacks

Lumpenus sagitta Wilimovsky, snake prickleback

Copepoda
- *Lepeophtheirus cuneifer*

SCORPAENIDAE, scorpionfish

Sebastes aleutianus (Jordan and Evermann), rougheye rockfish

Monogenea
- *Benedenia derzhavini*
- *Trochopus* sp.

Trematoda
- *Derogenes varicus*
- *Neolepidapedon sebastisci*
- *Podocotyle* sp.
- *Prosorhynchus crucibulum*
- *Stephanostomum dentatum*

Cestoda
- *Nybelinia surmenicola**
- *Phyllobothrium* sp.*

Nematoda
- *Contracaecum* sp.*
- *Cucullanus* sp.
- *Hysterothylacium aduncum*

Acanthocephala
- *Corynosoma* sp.*
- *Echinorhynchus gadi*

Copepoda
- *Brachiella robusta*
- *Chondracanthus pinguis*
- *Clavella parva*
- *Colobomatus kyphosus*
- *Sarcotaces arcticus*

Sebastes alutus (Gilbert), Pacific ocean perch

Monogenea
- *Benedenia derzhavini*
- *Microcotyle sebastis*
- *Trochopus* sp.

Trematoda
- *Derogenes varicus*
- *Fellodistomum sebastodis*
- *Lecithaster gibbosus*
- *Lecithophyllum botryophorum*
- *L. spaerolecithum*
- *Neohelicometra sebastis*
- *Opechona alaskensis*
- *Podocotyle atomon*
- *Podocotyle* sp.
- *Prosorhynchus crucibulum*
- *Psettarium sebastodorum*

Cestoda
- *Bothriocephalus scorpii*
- *Bothriocephalus scorpii**
- *Nybelinia surmenicola**
- *Phyllobothrium* sp.*
- *Scolex pleuronectis**

Scorpaenidae (continued).

Nematoda
Ascarophis pacificus
Contracaecum sp.*
Cucullanus heterochrous
Cucullanus sp.
Hysterothylacium aduncum
Acanthocephala
Bolbosoma caenoforme
Corynosoma reductum
Corynosoma sp.
Corynosoma sp.*
Echinorhynchus gadi
Copepoda
Brachiella robusta
Chondracanthus pinguis
Chondracanthus triventricosus
Clavella parva
Colobomatus kyphosus
Haemobaphes theragrae
Sarcotaces arcticus

Sebastes ciliatus (Tilesius), dusky rockfish

Monogenea
Trochopus sp.
Trematoda
Derogenes varicus
Fellodistomum sebastodis
Lecithophyllum botryophorum
Opechona alaskensis
Opechona occidentalis
Podocotyle sp.
Prosorhynchus crucibulum
Cestoda
*Nybelinia surmenicola**
Phyllobothrium sp.*
Nematoda
Contracaecum sp.*
Hysterothylacium aduncum
Acanthocephala
Corynosoma sp.*
Copepoda
Brachiella robusta
Chondracanthus pinguis
Chondracanthus triventricosus
Colobomatus kyphosus

Sebastes flavidus (Ayres), yellowtail rockfish

Copepoda
Sarcotaces arcticus

Scorpaenidae (continued)

Sebastes melanops Girard, black rockfish

Monogenea
Trochopus marginata
Copepoda
Clavella parva
C. recta

Sebastes polyspinis Taranetz and Moiseev, northern rockfish

Trematoda
Fellodistomum sebastodis
Opechona alaskensis
Podocotyle sp.
Psettarium sebastodorum
Cestoda
*Nybelinia surmenicola**
Phyllobothrium sp.*
Nematoda
Contracaecum sp.*
Hysterothylacium aduncum
Copepoda
Chondracanthus pinguis
Chondracanthus triventricosus
Colobomatus kyphosus

Sebastes reflexa

Trematoda
Podocotyle reflexa

Sebastes ruberrimus (Cramer), yelloweye rockfish

Monogenea
Trochopus marginata

Sebastes zacentrus (Gilbert), sharpchin rockfish

Monogenea
Benedenia derzhavini
Microcotyle sebastis
Trochopus sp.
Trematoda
Derogenes varicus
Neolepidapedon sebastisci
Opechona alaskensis
Podocotyle sp.
Prosorhynchus crucibulum
Psettarium sebastodorum

Scorpaenidae, Sebastes zacentrus (continued)

Cestoda
Bothriocephalus scorpii*
Nybelinia surmenicola*
Phyllobothrium sp.*
Nematoda
Contracaecum sp.*
Hysterothylacium aduncum
Acanthocephala
Corynosoma sp.*
Echinorhynchus gadi
Copepoda
Brachiella robusta
Chondracanthus pinguis
Chondracanthus triventricosus
Colobomatus kyphosus
Haemobaphes theragrae

ANOPLOPOMATIDAE, sablefish

Anoplopoma fimbria (Pallas), sablefish

Trematoda
Stephanostomum californicum
Cestoda
Nybelinia surmenicola*
Scolex sp.*
Nematoda
Contracaecum sp.*
Phocanema sp.*
Acanthocephala
Corynosoma sp.*

HEXAGRAMMIDAE, greenling

Hexagrammos lagocephalus (Pallas), rock greenling

Trematoda
Urinatrema aspinosum
Nematoda
Phocanema decipiens*
Acanthocephala
Corynosoma sp.
Copepoda
Lepeophtheirus cuneifer

Pleurogrammus monopterygius (Pallas), Atka mackerel

Copepoda
Lepeoptheirus parviventris

COTTIDAE, sculpins

Cottus aleuticus Gilbert, coastrange sculpin

Protozoa
Cryptobia sp.

Hemilepidotus hemilepidotus (Tilesius), red Irish lord

Trematoda
Derogenes varicus
Prosorhynchus sp.*
Nematoda
*Phocanema decipiens**
Acanthocephala
Corynosoma sp.

Leptocottus armatus Girard, Pacific staghorn sculpin

Copepoda
Lepeophtheirus cuneifer

Myoxocephalus polyacanthocephalus (Pallas), great sculpin

Copepoda
Chondracanthus lotellae
Hirudinea
Levinsenia rectangulata

CYCLOPTERIDAE, snailfish

Aptocyclus ventricosus (Pallas), smooth lumpsucker

Trematoda
Prosorhynchus mizelli

PLEURONECTIDAE, righteye flounders

Atheresthes stomias (Jordan and Gilbert), arrowtooth flounder

Trematoda
Stephanostomum sp.*
Cestoda
*Nybelinia surmenicola**
Acanthocephala
Corynosoma strumosum
Echinorhynchus sp.
Nematoda
Phocanema sp.*
Contracaeceum sp.*

Pleuronectidae (continued)

Eopsetta jordani (Lockington), petrale sole

Myxozoa
Kudoa sp.

Hippoglossus stenolepis Schmidt, Pacific halibut

Myxozoa
Kudoa sp.
Monogenea
Entobdella hippoglossi
Trematoda
Derogenes varicus
Pseudopecoelus nossamani
Isopoda
Rocinela angustata
Rocinela belliceps
Copepoda
Acanthochondria cornuta
Lepeophtheirus appendiculatus
Lepeophtheirus cuneifer
Lepeophtheirus parviventris

Isopsetta isolepis (Lockington), butter sole

Copepoda
Lepeophtheirus cuneifer

Lepidopsetta bilineata (Ayres), rock sole

Trematoda
Derogenes varicus
Copepoda
Lepeophtheirus parviventris

Microstomus pacificus (Lockington), Dover sole

Myxozoa
Kudoa sp.

Platichthys stellatus (Pallas), starry flounder

Copepoda
Lepeophtheirus parviventris

Pleuronectes quadrituberculatus Pallas, Alaska plaice

Copepoda
Lepeophtheirus marcepes

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